

SIMPLE STEPS TO ACCURATE SPRAYER CALIBRATION

Calibrating sprayers involves selecting the proper nozzles, spraying pressure, and speed of travel. There are several different ways to accurately calibrate a sprayer, but the simplest is the 1/128th acre (340 sq.ft.) method, also called the “baby bottle” method. The spray collected from a single nozzle measured in ounces directly converts to gallons per acre regardless of the number of nozzles on the boom. Because there are 128 ounces in a gallon, the ounces collected from 1/128th of an acre will equal gallons of solution per acre.

Follow the 10 easy steps below to avoid needless chemical waste, improper application, and potential turf injury.

1. Fill sprayer with water. Use only clean water to calibrate sprayer.
2. Measure the distance (in inches) between nozzles on the spray boom. Then refer to chart below to obtain test course distance (in feet).
3. To check the uniformity of all nozzles on the boom, collect the spray from each nozzle for the same amount of time (ex. 1 minute). If the flow rate of any spray tip is 10% greater or less than that of the others, replace it. Whatever the type of sprayer tips you use, be sure they are all the same type.
4. Measure the course distance (in feet) according to the chart and flag it for easy visibility.
5. Drive the test course at an acceptable spraying speed with the sprayer on. Make note of the engine RPM's, and most importantly, record the seconds it takes to travel the measured distance between the two flags. Be sure to take a “running start” to the beginning flag, and drive beyond the ending flag to maintain a uniform speed within the flagged distance.
6. Park the tractor/sprayer, set the brakes, but keep the engine RPM's at the same setting used to drive the test course and make any final sprayer pressure adjustments (this will vary with the type of spray tips you use and the gallons per minute you wish to spray through them).
7. Using a plastic measuring container that is marked in ounces, collect the water sprayed from one nozzle for the same amount of time it took to drive the test course.
8. The amount of water collected in ounces will equal the gallons applied per acre.
9. Be sure to read all product labels for proper application information, use rates, etc.
10. While making applications maintain continuous engine RPM's and ground speed used in test run.

NOZZLE SPACING AND DISTANCE CHART FOR 1/128TH ACRE

Nozzle Spacing (in)	Distance (ft)
6	681
8	510
10	408
12	340
14	292
16	255
18	227
20	204
22	186
24	170
26	157
28	146
30	136

For a backpack or other single nozzle sprayers this same method will still work. Simply determine the width of the spray pattern to get the distance. Or, fill the sprayer completely with water then spray an area equal to 340 sq. ft. (20' x 17'). The ounces of water required to refill the sprayer will equal gallons per acre.

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